

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

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|-------------|----------|
| VORFRISTEN: | 30.11.05 |
| | 30.10.05 |

To:

AKTE:

NOT: *h*

Giesecke & Partner
Patentanwalte, Rechtsanwälte
Stuttgart

see form PCT/ISA220

11. JULI 2005

SC

Bearbeiter:

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/EP2005/000841

International filing date (day/month/year)
28.01.2005

Priority date (day/month/year)
30.01.2004

International Patent Classification (IPC) or both national classification and IPC
C12N15/81, C12N1/15, C12N1/19

Applicant

MIXIS FRANCE S.A.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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D-80298 Munich
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Authorized Officer

Stoyanov, B



10/587651

AP20 Rec'd PCT/PTO 28 JUL 2006

International application No.
PCT/EP2005/000841

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - in written format
 - in computer readable form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2005/000841

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

| | | | |
|-------------------------------|------|--------|------|
| Novelty (N) | Yes: | Claims | |
| | No: | Claims | 1-44 |
| Inventive step (IS) | Yes: | Claims | |
| | No: | Claims | 1-44 |
| Industrial applicability (IA) | Yes: | Claims | |
| | No: | Claims | 1-44 |

2. Citations and explanations

see separate sheet

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)

International application No.

PCT/EP2005/000841

Section V

1. The claims should clearly specify all the essential features needed to define the invention. When reading the claims a person of average skill in the art should be able to make a technical sense out of it. However, present claims 1-44 are unduly broad and do not specify how to generate and detect the recombinant DNA sequences. In other words, Applicant attempts to define the subject matter for which protection is sought by using only vague and imprecise terms and expressions like "recombinant cassette", that apparently can be a "cloning vehicle" or even an entire YAC; "marker sequence" and "target sequence" that are "homologous" to some locus, or unclear internal designations like for instance "pMXY9" and "pMXY12". Thus, the subject matter of present claims are defined only by the result to be achieved, which is not allowable (Article 6 and Guidelines, CIII-4.7 PCT). Therefore, claims 1, 8 and 14 are unclear.
2. Furthermore, present international application provides with only a limited number of ways to perform the process of present claims 1-35, that can serve as the support for the extremely broad scope of said claims. Thus, this International Search Authority considers the subject matter of present international application as not sufficiently disclosed and, therefore not fully supported by the description (Article 5/6 PCT).
3. In view of the above, novelty and inventive step of the present application cannot be acknowledged by this International Search Authority.
4. It is well known in the art that targeted DNA recombination, especially when performed *in vivo* appears to be a delicate process which success depends strongly on the precise choice of strictly defined DNA sequences flanking the sequence to be recombined. The vague and imprecise definition of the process of present claims 1-35 and the plasmids/strains of the claims 36-44 which are apparently not connected by any means to the process of claims 1-35, are unclear. This International Search Authority has serious doubts that a person skilled in the art will be able to reproduce the subject matter of present application without suffering undue burden.